

What I claim is:

1. An improved method of fabricating a cast-iron bottle mold employing the steps of:

providing a composite mold having a composite mold cavity contoured to form a rough casting for a bottle mold when filled with molten metal,

providing a gating system for introduction of cast iron into the composite mold cavity,

providing a risering system for supplying molten metal to the composite mold cavity as the molten metal solidifies,

placing at least one dissimilar metal insert blank in at least one region of the composite mold cavity which corresponds to a region of rapid degradation in the resulting bottle mold,

filling the composite mold with molten cast iron to form a rough casting, and

machining the rough casting to form a metal bottle mold,

the improvement comprising the steps of:

providing a chill positioned in the composite mold and configured to form a mating surface of a central cavity of the resulting rough casting; and

providing an insert imprint in said chill for each of the at least one dissimilar metal insert blanks, each of said insert imprints slidably engaging and fixably holding the corresponding at least one dissimilar metal insert blank.

2. The method of claim 1 wherein the at least one dissimilar metal insert blanks are formed a nickel base alloy.
3. The method of claim 2 wherein the gating system has a riser neck positioned to introduce the molten metal from a central riser at a location approximately midway along the cavity length, the riser communicating with the cavity via the riser neck.
4. The method of claim 3 wherein the riser system has a single riser positioned at the end of the ingate opposite the central cavity.
5. The method of claim 2 further comprising the step of:

providing protrusions on the dissimilar metal inserts.
6. The method of claim 5 wherein said protrusions are serrations.
7. The method of claim 5 wherein said protrusions are radial projections.